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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,132	11/05/2003	Dennis D. Bicker	1033-SS00355	6845

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EXAMINER

DESIR, PIERRE LOUIS

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/702,132

Applicant(s)

BICKER ET AL.

Examiner

Pierre-Louis Desir

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 14, 15 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 14, 15 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/19/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-7, 14, 15, and 18-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 7, 14-15, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fors et al. (Fors), Patent No. 6931249 in view of Ibe et al. (Ibe), Pub. No. US 20040218575.

Regarding claim 1, Fors discloses a method comprising: determining that the mobile phone is within range of a wireless local area network base station with voice over internet protocol capability (i.e., as the mobile station moves within the coverage area of WLAN AP, the mobile station performs signal strength measurements) (see col. 5, lines 62-63); receiving an internet protocol address associated with the wireless local area network base station (i.e., the mobile station establishes contact with AP 210, wherein establishing contact involves obtaining an IP address) (see col. 5, lines 64-65).

Although Fors discloses a method as described, Fors does not specifically disclose a method comprising sending a call forwarding message including the internet protocol address from the mobile phone to a remote cellular network element of a wide area cellular network.

However, Ibe discloses a method wherein when a mobile node connects to a foreign network, which is any network that is not its home network, it registers its care-of-address (COA) with the home agent, which is a router that serves the mobile nodes in a given network. The home agent uses the COA to forward packets arriving at the home network and destined for the mobile node. The tunnel from the home agent terminates at the foreign agent (a router in the visited (foreign or roaming) network whose IP address the mobile uses as its COA), and it is the responsibility of the foreign agent to forward packets arriving via the tunnel to the mobile node (see paragraphs 7-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Ibe with the teachings as disclosed by Fors to arrive at the claimed invention. A combination for doing so would have been to ensure that data is routed to the proper network as related to the network that has been determined to provide cheaper service (see col. 5, line 62 through col. 6, line 7).

Regarding claims 2, 7, and 19, Fors discloses a method as described above (see claim 1 rejection).

Although Fors discloses a method comprising communicating using voice over Internet protocol (reads on claim 7) (see col. 4, lines 45-54), Fors does not specifically disclose a method wherein the cellular network redirects a call destined to the mobile phone to the wireless local

area network base station for communication with the mobile phone using the voice over Internet protocol.

However, Ibe discloses a method wherein a home network (i.e., cellular) redirects a call destined to the mobile phone (node) to the foreign network (WLAN) for communication with the mobile phone (see paragraphs 7-8). Ibe further discloses a method wherein the call (i.e., packets) destined to the mobile phone is communicated between the remote cellular network element (i.e., home agent) and the wireless local area network base station (i.e., foreign agent) without utilizing a public switched telephone network (i.e., the home agent forward packets using the COA to the mobile node---read on claim 19) (see paragraphs 7-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Ibe with the teachings as disclosed by Fors to arrive at the claimed invention. A combination for doing so would have been to ensure that data is routed to the proper network as related to the network that has been determined to provide cheaper service (see col. 5, line 62 through col. 6, line 7).

Regarding claim 3, Fors discloses a method (see claim 1 rejection) wherein the mobile phone determines that it is in range of the wireless local area network by receiving a message in accordance with an IEEE 802.11 communication protocol (i.e., the mobile station monitors for WLAN (WLAN is a known wireless infrastructure such as that conforming to the IEEE 802.11 standard) availability and establishing contact with the WLAN, which includes obtaining IP address from the WLAN (col. 3, lines 11-21, and 37-39, and col. 5, lines 62-65).

Regarding claim 4, Fors discloses a method as described above (see claim 1 rejection).

Although Fors discloses a method as described, Fors does not specifically disclose a method wherein the Internet protocol address is communicated to the mobile phone using a dynamic host configuration protocol.

However, Ibe discloses a method wherein Internet protocol address is communicated to a mobile phone using a dynamic host configuration protocol (see paragraph 42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Ibe with the teachings as described by Fors to arrive at the claimed invention. A motivation for doing so would have been to reduce the work necessary involved in the distribution of IP addresses.

Regarding claim 14, Fors discloses a mobile phone (see abstract) device comprising: a housing (see fig. 2b); an antenna attached to the housing (see fig. 2b); a memory disposed within the housing (see fig. 2b, col. 4, line 8), the memory to store an Internet protocol address received by the mobile phone from a wireless local area network (the MS obtains an IP address) (see col. 5, lines 64-65); a wide area cellular communications module disposed within the housing (i.e., dual mode mobile station: a WWAN mode and a WLAN mode) (see abstract, and col. 3, lines 18-20), the wide area cellular having a cellular interface to communicate with a remote wide area cellular network (i.e., the dual mode is served by a cellular base station) (see col. 3, lines 18-20); and a short-range wireless local area network module disposed within the housing (i.e., dual mode mobile station: a WWAN mode and a WLAN mode) (see abstract, and col. 3, lines 18-20), the short-range wireless local area network module having a wireless interface to communicate with a wireless local area network having voice over internet protocol communications capability (i.e., the dual mode mobile station monitors WLAN availability).

Although Fors discloses a mobile phone device as described above, Fors does not specifically disclose a mobile phone device, wherein the wide area cellular communication module formulates a call forwarding message that includes the internet protocol address, the call forwarding message to be communicated to the remote wide area cellular network.

However, Ibe discloses that when a mobile node is connected to a foreign network, which is any network that is not its home network, it registers its care-of-address (COA) with the home agent, which is a router that serves the mobile nodes in a given network. The home agent uses the COA to forward packets arriving at the home network and destined for the mobile node. The tunnel from the home agent terminates at the foreign agent (a router in the visited (foreign or roaming) network whose IP address the mobile uses as its COA), and it is the responsibility of the foreign agent to forward packets arriving via the tunnel to the mobile node (see paragraphs 7-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Ibe with the teachings as disclosed by Fors to arrive at the claimed invention. A combination for doing so would have been to ensure that data is routed to the proper network as related to the network that has been determined to provide cheaper service (see col. 5, line 62 through col. 6, line 7).

Regarding claim 15, Fors discloses a device (see claim 14 rejection) wherein the wide area cellular communications module and the short-range wireless local area network module are computer software modules integrated within a digital processor device (i.e., dual mode mobile station) (see abstract, and col. 3, lines 18-20)

Regarding claim 20, Fors discloses a method (see claim 1 rejection) wherein the Internet protocol address is received at the mobile phone from the wireless local area network base station via a wireless connection (see fig. 2a, and col. 5, lines 62-65).

4. Claims 5-6, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fors and Ibe, further in view of Chandra et al. (Chandra), Pub. No. US 20030217180.

Fors and Ibe disclose a method and a device as described above (see claims 1 and 14 rejections).

Although the combination discloses a method (and a device---as related to claim 18) further comprising determining that the mobile phone has moved out of range of the wireless local area network base station (see Ibe paragraphs 45-46), the combination does not specifically disclose sending a message to the cellular network element to cancel (the previously communicated call forwarding message to be sent to the remote wide area cellular network---as related to claim 18) call forwarding to the wireless local area network base station.

However Chandra discloses a method wherein a mobile node roams back to the home network. The mobile node sends a deregistration request to the home agent, requesting the home agent delete its bindings. The mobile node can delete the bindings to the mobile node. If a tunnel were created, it would also be deleted (see paragraphs 39-40). Thus, it would be obvious to one skilled in the art (combining the teachings of Chandra with Fors and Ibe) that when the mobile node roams back to the home network, it sends a message (i.e., deregistration message) which indicates to the home agent to delete bindings, tunnel information (i.e. care-of-address), which would indicate that the forwarding of data using the care-of-address (as related to tunneling) will

be cancelled. It would also be obvious to one skilled in the art to immediately envision (combination the teachings of Chandra with Fors and Ibe) that if the mobile node roams back to its network, the home network will be ending data directly to the mobile node without using bindings or tunnel, since that information would be canceled.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Chandra with the teachings as described by Fors and Ibe to arrive at the claimed invention. A motivation for doing so would have been to provide better quality of service or free up space.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is (571) 272-7799. The examiner can normally be reached on Monday-Friday 8:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PL

Pierre-Louis Desir
03/03/2007

JEAN GELIN
PRIMARY EXAMINER

Jean Gelin